

REMARKS

In order to expedite prosecution, claims 1 and 2 have been canceled without prejudice/disclaimer to the subject matter embodied thereby, rendering the rejections thereagainst moot.

Claim 3 stand rejected under 35 U.S.C. § 102(e) as being anticipated by the prior art admitted by Applicant ("PAAA") in Figure 8 of Applicants' drawings. This rejection is respectfully traversed for the following reasons.

Claim 3 recites in pertinent part, an "arranging means for grouping the plurality of pixels into at least two pixel addition groups each of which consists of  $r \times s$  pixels included in an area of  $r$  rows (where  $r = 6n + 2$ ,  $n$  is a natural number) and  $s$  columns (where  $s = 6m + 2$ ,  $m$  is a natural number) and grouping the  $r \times s$  pixels into pixel mixture units each of which consists of  $p \times q$  pixels included in an area of  $p$  rows (where  $p = 4n + 1$ ,  $n$  is a natural number) and  $q$  columns (where  $q = 4m + 1$ ,  $m$  is a natural number), ... wherein pixels in two rows or two columns of each pixel addition group *overlap with associated pixels in two rows or two columns of an associated pixel addition group*" (emphasis added). According to one aspect of the present invention, the claimed combination can make it possible to provide a solid state imaging apparatus requiring fewer capacitors for storing pixel signals.

Turning to the cited prior art, PAAA discloses only a solid state imaging apparatus in which R, G and B form a  $2 \times 2$  pattern, where 16 pixels included in an area of  $4 \times 4$  pixels form a pixel addition group 100 (see Fig. 8 of Applicants' drawings). However, the pixel addition group 100 does not overlap with any other pixel addition groups in both the row and column directions (see Fig. 8 and page 1, lines 14-23 of Applicants' specification).

Specifically, the pixel addition group 100 includes G pixel mixture units (i.e., first and second G using ranges 101 and 104) in which a pixel at the center and pixels on the periphery contain G color filters. In the B using range 102 (B pixel mixture unit), however, only pixels on the periphery contain B color filters. Similarly, in the R using range 103 (R pixel mixture unit), only pixels on the periphery contain R color filters.

In contrast, according to one exemplary embodiment of the present invention as shown in Figure 5 of Applicants' drawings, each pixel addition group (8 x 8 pixel group) can include pixel mixture units 61-64 for each of Gr, R, B and Gb, and a pixel at the center and pixels on the periphery of *every* pixel mixture unit can contain color filters of the same color. In this regard, pixels in two rows or two columns of each pixel addition group can overlap with associated pixels in two rows or two columns of an associated pixel group. For example, as shown in exemplary form in Fig. 6 of Applicants' drawings, the R pixel mixture unit 74 and B pixel mixture unit 76 can overlap in a row direction by two rows of pixels, and the Gb pixel mixture unit 72 and the B pixel mixture unit 73 can overlap in a column direction by two columns of pixels. In other words, in accordance with the present invention, not only four kinds of pixel mixture units can overlap with each other within a pixel addition group, but the pixel addition group itself can also overlap with an associated pixel addition group. PAAA is completely silent as to such a configuration

As anticipation under 35 U.S.C. § 102 requires that each and every element of the claim be disclosed, either expressly or inherently (noting that "inherency may not be established by probabilities or possibilities", *Scaltech Inc. v. Retec/Tetra*, 178 F.3d 1378 (Fed. Cir. 1999)), in a single prior art reference, *Akzo N.V. v. U.S. Int'l Trade Commission*, 808 F.2d 1471 (Fed. Cir. 1986), based on the forgoing, it is submitted that the PAAA does not anticipate claim 3, nor any

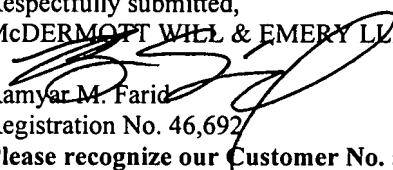
claim dependent thereon. Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplicatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claim 3 is patentable for the reasons set forth above, it is respectfully submitted that all claims dependent thereon are also patentable. In addition, it is respectfully submitted that the dependent claims are patentable based on their own merits by adding novel and non-obvious features to the combination.

Based on the foregoing, it is respectfully submitted that all pending claims are patentable over the cited prior art. Accordingly, it is respectfully requested that the rejection under 35 U.S.C. § 102 be withdrawn.

### **CONCLUSION**

Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication for which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below. To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,  
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